

**LCDR RICK
FREEDMAN**

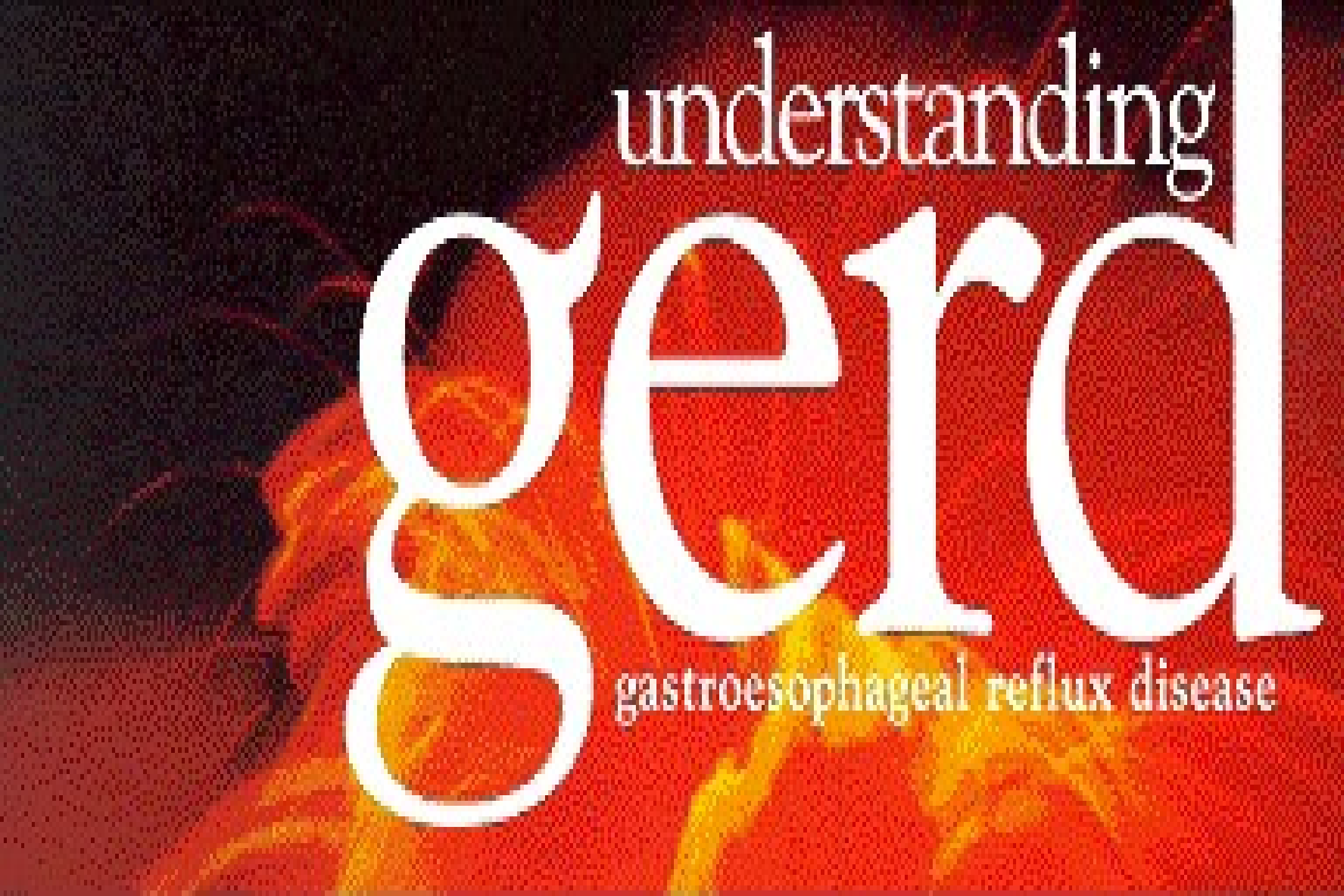
**U.S. NAVY DENTAL
CORPS**

**COMPREHENSIVE
DENTISTRY**

Gertrude “Gerd” Silverman







understanding

GERD

gastroesophageal reflux disease

G.E.R.D.

- **Normal Physiology**
- **What is it?**
- **Etiology**
- **Exacerbating Factors**
- **Symptoms**

Normal Physiology

- **Esophagus**
- **Lower Esophageal Sphincter (LES)**
- **Stomach**
- **Duodenum**
- **Peristalsis (1° and 2°)**

G.E.R.D.

- **Condition or changes in tissue structures that results from reflux of stomach contents into the esophagus.**
- **Symptoms may affect up to 7% of adults daily.**
- **80% of adults with asthma may have abnormal reflux.**

Etiology

- **LES irregularities**
- **Delayed stomach emptying**
- **Ineffective esophageal clearance**
- **Diminished salivation**
- **Lower pH of stomach reflux**

Exacerbating Factors

- **Smoking**
- **Caffeine**
- **Chocolate**
- **Fatty foods**
- **Increased abdominal pressure**

Symptoms

- **Heartburn**
- **Regurgitation**
- **Dysphagia**
- **Pulmonary symptoms**
- **Tooth erosion**
- **Laryngitis**

Diagnosis

- **Symptoms similar to cardiac disease**
- **History**
- **Tests**
 - **pH monitoring**
 - **Esophageal acid infusion test**
 - **Gastrointestinal endoscopy**

Dental Considerations

- **Erosion**
- **Differential diagnosis**
- **Classification of lesions**
- **Interactions with medications**
 - **Antacids**
 - **H2 histamine antagonist**

Dental Considerations

- **Xerostomia**
- **Drug interactions**
 - **Antacids interfere with absorption**
 - **H2 receptor antagonists bind to CP450 system**
- **Must identify cause of erosion**
- **Restorative challenges**

Treatment

- **Lifestyle changes**
- Pharmaceutical
- Surgical

Treatment

- Lifestyle changes
- **Pharmaceutical**
- Surgical

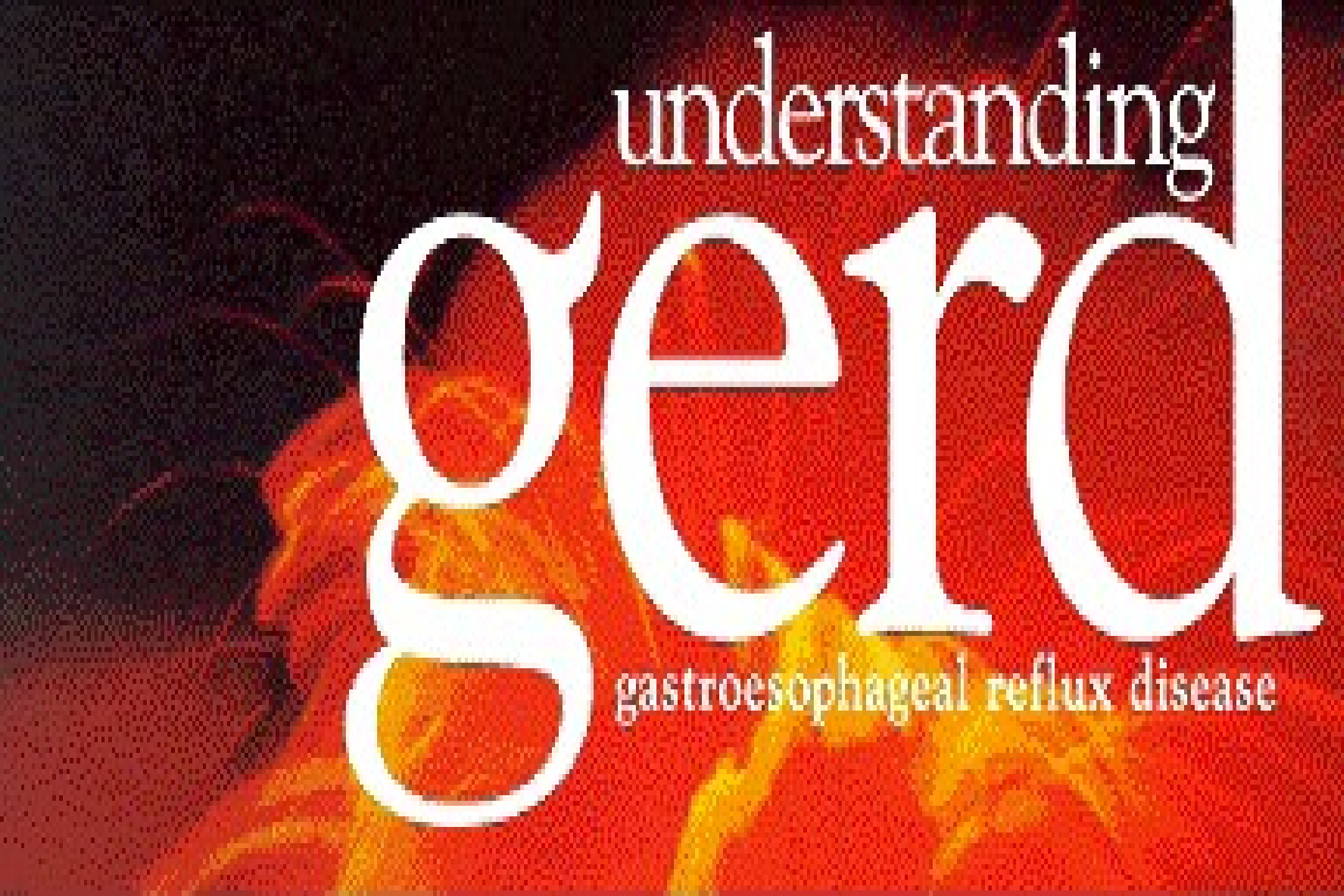
Treatment

- Lifestyle changes
- Pharmaceutical
- **Surgical**









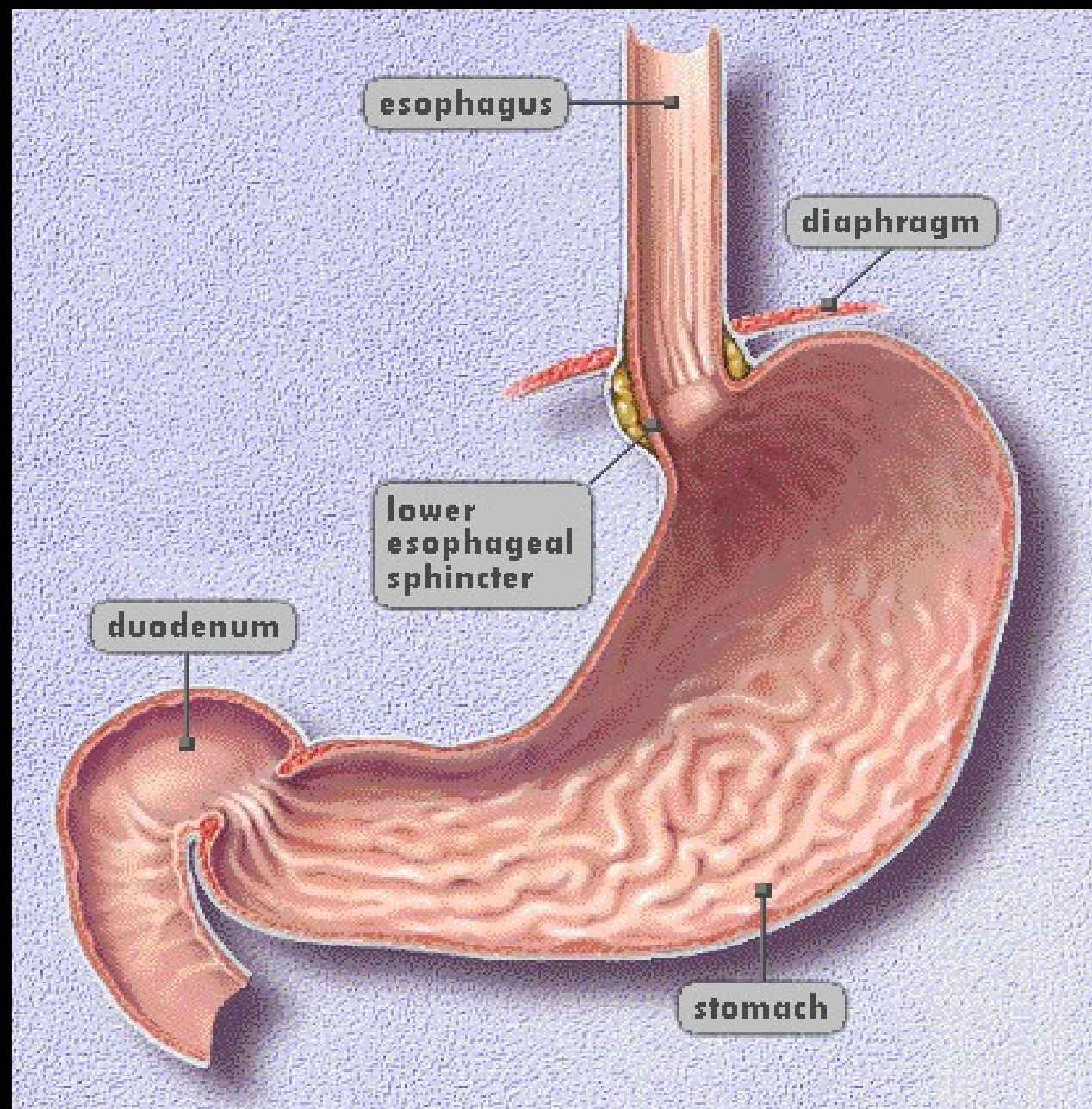
understanding

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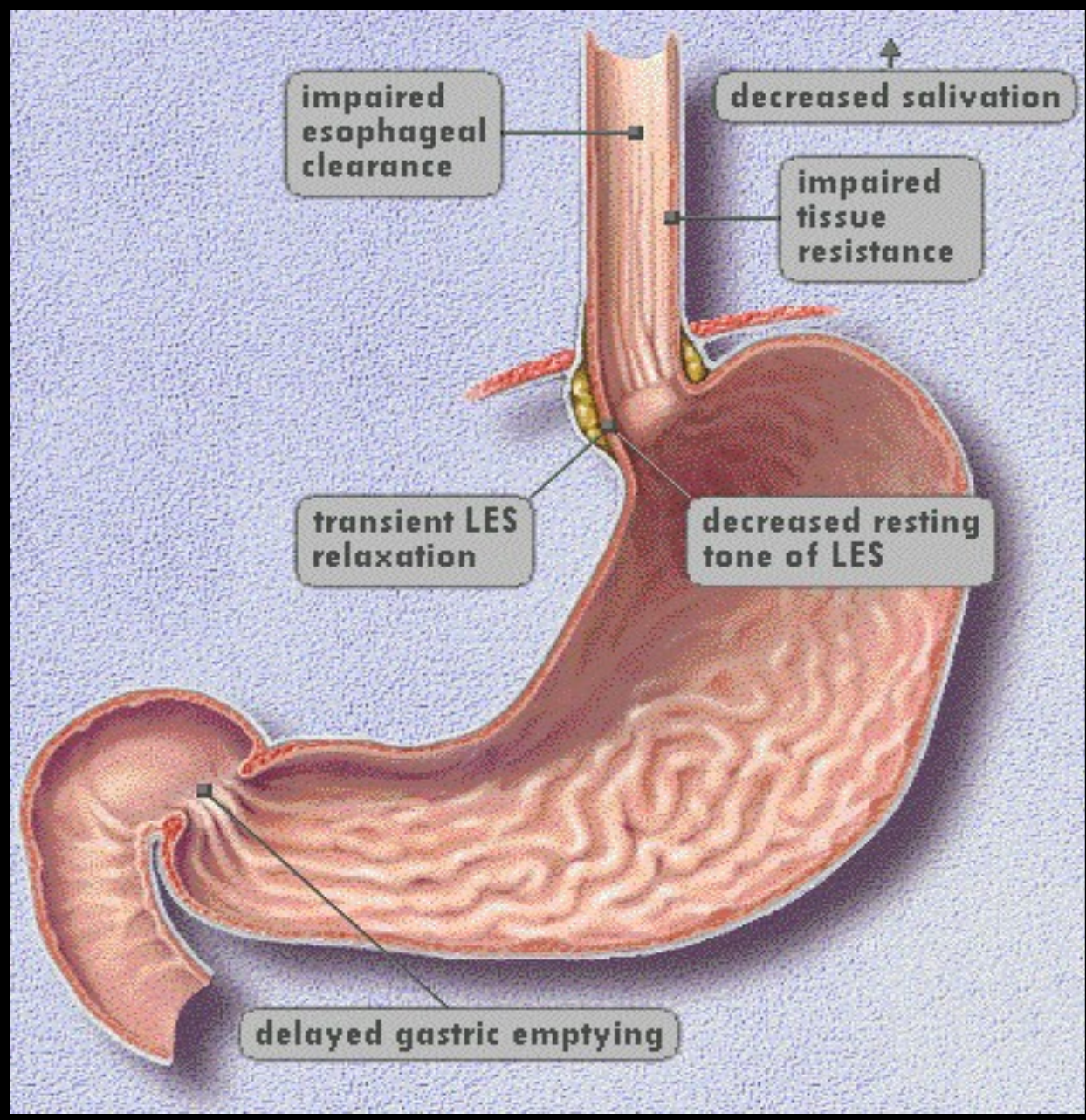
G.E.R.D.

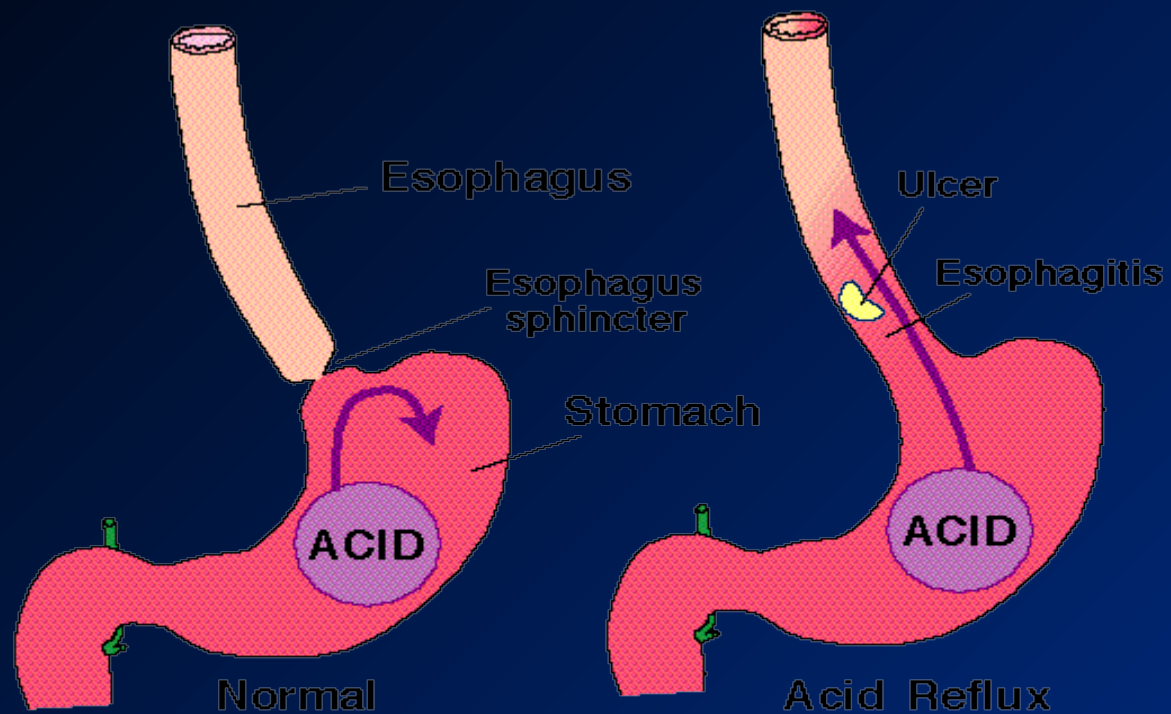
- **Diagnostic Procedures**
- **Associated Problems**
- **Dental Considerations**
- **Treatment**



G.E.R.D.

- **U.S. heartburn sufferers spend about \$ 3.7 billion per year on heartburn medications.**
- **67 million people in U.S. take antacids every day.**
- **10% of G.E.R.D. patients develop Barrett's Esophagus.**





ESOPHAGITIS

A. Gonsall





Associated Problems

- **Esophageal ulcer and constricture**
- **Barrett's epithelium**
- **Pulmonary aspiration**
- **Dysphagia**
- **Dental disorders**





Lifestyle Changes

- **Postural Maneuvers**
- **Diet**
- **Drug Interactions**
 - **Medications that inhibit salivation**
 - **ASA, TCN and NSAID's may have local corrosive effect.**

Pharmaceutical

- **Antacids**
 - Alka-Seltzer, Malox, Tums
- **H₂ receptor antagonists**
 - Cimetidine (Tagamet), Famotidine (Pepcid), Ranitidine (Zantac)
- **Proton Pump inhibitors**
 - Omeprazole (Prilosec), Lansoprazole (Prevacid)
- **Prokinetic agents**
 - Cisapride (Propulsid)

Surgical

- **Open Fundoplication**
- **Laparoscopic fundoplication**

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